MILE HIGH
STARFLEET
ATARI COMPUTER USER GROUP
ATARI MAGAZINE
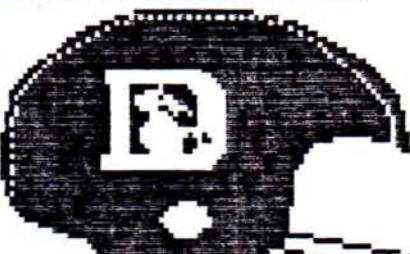
ADDRESS CORRECTION REQUESTED

MEETING SCHEDULE

JAN 5 - ATARI CLUB OF DENVER
NEED PRES. & NEWS ED.

JAN 8 - STARFLEET ATARI USER GROUP

JAN 19- STIG MEETING

HORIZON COMPUTERS
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LOOK FOR BASIC INTEREST GROUP MEETINGS HERE IN NEAR FUTURE....

INSIDE THIS ISSUE

PLEASE - CHECK THE DATE ON YOUR ADDRESS LABEL TO SEE IF YOUR DUES ARE DUE!!!!!!!!

exist. Changing from one dialect to an other can be almost as hard as working in a totally new language. The BASICs available for the Atari include: Atari BASIC, Atari Microsoft BASIC, BASIC XE, BASIC XL, ADVENT BASIC, TURBO BASIC, and ABC BASIC Compiler. BASIC has two different user enviroments, interpeted and compiled. Interpeted BASIC is very interactive, programs can be run, stopped and continued. This allows for easy debugging of code. Being interpeted makes BASIC slow in comparison to compiled or threaded languages. Compiled BASIC is as fast as most other compiled languages. The speed is gained at the expense of the user interactivity that makes BASIC easy to learn and use. The best approch to creating a BASIC program is to use an interpeted version to debug. When the program is completely running, compile the program to give it the speed it may need. The only caveat needed is to make sure both versions of basic are of the same dialect. All versions of BASIC for the ATARI use the "E:" device. This allows a full screen editor for program entry and development. After working with the ATARI editor all other machines become difficult and awkward to use. Each line in a BASIC program starts with a line number between 1 and 32767. The orignal Dartmouth BASIC allowed only one command per line, but all ATARI BASIC verisions allow multiple commands on each line seperated by a colon. If the line number is left off a line, that line is executed in immediate mode. Immediate mode is what makes BASIC so interactive. Any command or function can be entered in immediate mode. This allows the printing of variable contents, loop counters, or examining memory locations while debugging or testing. BASIC does not use structured programming techniques, although some BASICs do provide structured constructs. These include, PROCEDURE, IF-THEN-ELSE, WHILE and UNTIL. If care is not used in creating a normal BASIC program, the infamous spaghetti code could result. This is where the program does not flow from the first line to the last, but instead jumps all around from one section to another. This normally results from poor design and trying to add a twelve line function between lines 110 and 120. A renumbering command would help this situation, unfortunely, not all basics include this command. Basic does not allow for the use of libraries. To use the neat joystick routine in all your games, it's code must be entered into each games source. This makes BASIC a poor choice for development of commercial software where a uniform user environment is desired. BASIC is one of the few languages that supportes floating point numbers. Some BASICs allow switching to integer arithmetic to increase the speed of the program. BASIC allows multidimensional arrays, with each element a floating point number, or in some dialects a string. The handling of strings is the major differance between the dialects of BASIC for the ATARI computer. In ATARI BASIC and similar versions, a string is a single dimensioned array of characters. Before a string can be used it must be dimensioned. This makes an array of strings very

difficult. With this method of using strings, strings of any length up to all of free memory can be created. ATARI Microsoft BASIC and its similar versions, allow each string variable to hold up to 255 characters. Arrays of strings can be easily created by dimensioning the variable name. Operations in BASIC can be done in two different ways. Commands, like; "PRINT", "LET", AND "POKE", take arguments and operate on them. A command cannot be an argument to another command. Functions, on the other hand, can be arguments to commands or other functions (i.e. "PRINT FRE(0)", "LET X=PEEK(N)" and "A$=LEFT$(1, A$)"). Some versions of basic allow the user to create a function or functions for their own use. Programs requiring speed, maintenance or to be given or sold to others are examples of poor uses of BASIC. Interpeted BASIC is slow. The lack of structure can make understanding and modifing code difficult a few years after it is written. Unless it is written in ATARI BASIC, not everyone will have a copy of the interpeter/compiler needed to run your program. Throwaway programs, ones only to be used once or twice, are the best use for BASIC. With its interactivness BASIC is very useful for programs needed now, its easy to write, debug and run programs in a short period of time. Programs requiring floating point arithmatic is another good use of BASIC. BASIC can be used effectively to write all kinds of programs, but other languages may be faster, easier, or more maintainable. BASIC is the "jack of all trades" language for the ATARI computers. Following is a listing of "ORANGES" written in ATARI BASIC.

```
0 REM ORANGES IN BASIC
1 REM BY DALE LUTZ 6/6/84
10 BALLSTART=210:TONE=300:WAIT=430
20 LEFTONE=130:RIGHTONE=170
30 SCREENSETUP=320:STARTGAME=360
40 LEFT=11:RIGHT=7:DOWN=75:SCREENWIDTH=157:
   CATCHCHECK=230:GAMEOVER=410
50 CENTER=INT(SCREENWIDTH/2)
60 GOSUB SCREENSETUP:GOSUB BALLSTART
70 ST=STICK(0)
75 IF PEEK(764)<>255 THEN GOSUB WAIT
80 IF ST=LEFT THEN GOSUB LEFTONE
90 IF ST=RIGHT THEN GOSUB RIGHTONE
100 COLOR 0:PLOT BALX, BALY:BALY=BALY+0.5:COLOR 1:   PLOT
BALX, BALY
110 IF BALY=DOWN THEN GOTO CATCHCHECK
120 GOTO 70
130 REM LEFTONE
140 COLOR 0:PLOT PLATE+1, DOWN:PLATE=PLATE-1
150 IF PLATE>2 THEN 160
155 PLATE=SCREENWIDTH+1:PLOT 1, DOWN:DRAWTO 3, DOWN:
   COLOR 2:PLOT SCREENWIDTH-1, DOWN:
   DRAWTO SCREENWIDTH+2, DOWN:RETURN
160 COLOR 2:PLOT PLATE-1, DOWN:RETURN
170 REM RIGHTONE
180 COLOR 0:PLOT PLATE-1, DOWN:PLATE=PLATE+1
190 IF PLATE<SCREENWIDTH+1 THEN 200
192 PLATE=2:PLOT SCREENWIDTH-2, DOWN:DRAWTO SCREENWIDTH+2,
```

Software Review. ($2 an hour, (415) 332-6106.) HOW TO CALL A BULLETIN BOARD We'll call BUG -- the Boise Atari Users Group BBS -- because they have a list of over 1,000 BBS telephone numbers to browse through or download. If you don't live in Idaho, you'll need to pay a long distance telephone charge to call the BUG B.B.S. This works out to about the same amount of money as aCompuServe connect charge. DIAL FIRST "Tell" your modem program to dial BUG at (208) 383-9547. (Type 2083839547 -- no dashes) With 850 Express, we press the [E] key. If your modem has a speaker, you'll hear it dial. "Garbage" characters may appear on screen as the modem tries to determine the baud rate of the BBS -- we got loads of them. When you finally connect (be patient, it took us five tries) hit [RETURN]. Then select the right Atari mode. Go back to your modem program's Function Menu and choose ATASCII. Leave the program menu and press [RETURN]. The title screen appears: WELCOME TO BUG Most bulletin boards use commands similar to those on CompuServe. To stop scrolling depress the [CONTROL] key and [S] simultaneously. To start again, [CONTROL] [Q]. Type [X] to quit. Enter your Name >Charlie Jackson From City, State >San Francisco, CA You are CHARLIE JACKSON Calling from SAN FRANCISCO, CA CORRECT <Y/N>Y Logging caller No. 20946 to disk... On Thursday 05/15/86 13:30:25 MDT (^=CTRL) ^S PAUSE, ^Q RESUME, ^X QUIT -> ATARI BBS LIST IN '0' SECTION <- (This is what we want! Now, BUG will display current notes, bulletins & greeting messages. Then it will ask you:) First time on this BBS? <Y/N>Y (If this is your first visit to BUG, type Y Now we see a detailed introduction, along with some helpful hints. When this scrolls past, we're asked to make our selection:)Selection...(?=Menu) --)? (To look at the menu, depress the ? key.) ONE MOMENT CHARLIE JACKSON, GETTING FILE: MENU.DAT This is the BUG command menu:(A)TASCII/ASCII switch (B)ulletins (C)allers file (D)ownload (F)iles for download (G)oodby (H)elp file (I)nformation (L)inefeed on/off (M)essage base (N)ew user file (O)ther files (P)rivate mail (T)ime (U)pload a file (V)alley users (W)elcome sign-on (X)pert user (Y)ell for Sysop(?)-This menu Selection...(?=Menu) --)0 Choose the 0 option for the BBSLIST. Now you'll see a directory of files you can download from the 0 section: DIRECTORY - DOUBLE DENSITY SECTORSCOMDEX3 031 BBSLIST 078 ATRIBITS 013 CESWRAP 029 BBS1030 008 ONEMEGST 050<RETURN>=EXIT FILE NAME=>BBSLIST (Type in BBSLIST, the name of the the file we want to download.) Christensen XMODEM protocol? <Y/N>Y (Nearly every modem program is able to use this method of downloading files. XMODEM protocol is desirable because it recognizes and corrects any "noise" or interference on the telephone line.) READY TO SEND BBSLIST.TXT ^X TO CANCEL. BUG is waiting to send you the file -- but it won't wait long. This is the one step beginnng downloaders have the most trouble with. You must work fast, and you may get dumped off the system a few times before you get the hang of the procedure. Quickly, go back to your modem software's Function Menu. GO BACK TO THE MODEM SOFTWARE This procedure varys from modem program to modem program, but usually asks involves three things: 1. Call up your modem program menu. (We press SELECT.) 2. From the menu, choose the command to receive a file using XMODEM. (We press R with Express.) 3. Type in a filename for your computer to use when it begins to store the incoming data. (We called it "BBSLIST.TXT") RETURN TO THE BBS Leave the modem program function menu. (We press SELECT again.) BUG asks us: READY TO SEND BBSLIST.TXT? <Y/N?> Make sure there is a formatted disk in your drive to save this file to before you type Y Words will flash by on your computer screen. On the top of your screen, where "BUFFER:" appears, the number should be increasing as the file is sent. WE'RE ALL DONE Once your Atari has received the file, it automatically stores it on disk, using the filename you typed in earlier, and brings you: BACK TO BUG AGAIN Now, just type a "G" (goodbye) at the "Selection...(?=Menu) --)" prompt to log-off the BUG BBS. Turn off your computer, boot up your word processor (such as PaperClip or AtariWriter) and read your list of 1,000 bulletin boards. That should keep you busy for awhile.. Reprinted from Antic Magazine, August 1986.

IN YOUR DRIVE #9

is the latest installment of ol' Chet's personal grumbling and raving about and around the Atari community. This is the season to pinch those pennies, because hardly ANYone on your Christmas list is an Atarian. So let's look at some inexpensive tomfoolery for your Atari and mine.

DISPATCH RIDER is from Mastertronic and is only $5 at list price. It's sort of a cross between AutoDuel and Pac Man, with some weird kinks thrown in. The premise is that you're picking up and delivering packages, using an accident-prone motorcycle. You have an overhead view of two things: the entire city (complete with flashing dots representing your destination and your location) and your immediate area. To get to your destinations, you must avoid obstacles and take 90 degree turns. Naturally, your view of your immediate area isn't nearly large enough to react to ANYTHING in time. And if you go as slow as you need, you can't get to your points in time. Yes, you have a timer. Worse, you can't just pick up the packages, you have to catch them as they're thrown from a fifth story window! And you deliver them by throwing them across a street into doors which open and close randomly. Extremely frustrating and habit-forming, you'll stop occasionally to marvel that it only cost you a few bucks!

DUNGEONS OF DESPAIR will give you the same feeling. Keypunch prices this at $9, and it contains three separate text adventures: Alaska (Stranded in the snow! Get out alive?), Kidnapped (Exactly what it sounds like), and Dungeon (Once known as Escape from the Dungeons of the Gods). These were once type-in programs in SOFTSIDE (Remember that magazine? They also thought they could

THIS MONTH - FIVE YEARS AGO - CREATIVE COMPUTING - ATARI

- ATARI has taken legal action against two Hong Kong companies who were making pirate Pac Man home video game carts. - Rumor has it the price for the ATARI 2600 (known then as the ATARI VCS) will drop to under $100 -after- Christmas. Street price is currently $129. - Stevens Institute of Technology (Hoboken, NJ) -requires- certain majors to purchase an ATARI computer system for $750. Says the Dean, the objective is to have "the students begin to think of the computer as a permanent part of their intelllectual support systems." - MINER 2049er (Bounty Bob) is released. Only $49.95 for the first ever 16K cartridge. - Typical prices... - 800 16K ATARI - $649 - 800 48K ATARI - $777 - 810 disk drive - $428 - 850 Interface - $164 - 400 16K ATARI - $265 - WICO trackball - $ 55 - Of course, cassette (!) software abounded. - Strange ad department: - AD for COMPUTER EXCHANGE "Note: We are not an authorized IBM dealer." - The other guys prices... - "Black" APPLE - $1195 - VIC 20 - $ 229 - HAYES 1200 modem - $579 - EPSON MX-80 - $ 525 - Dtack Grounded releases a 68000 board ($627) for the APPLE II. - TIMEX announces the 16K T/S 1000 for $99.95. - Colecovision is released with NO suggested retail price. Sells for $160 - $200. - Bill Cosby touts "TI's Home Computer. This is the one." - Companies making software for the ATARI... - Adventure Int'l - Arcade Plus - Avalon Hill - Broderbund - Budgeco - Cavalier - Datasoft - Don't Ask - K-Byte - On-Line Systems - Roklan - Sirius - Sublogic - Synapse - Visicorp - Announced products from ATARI... - ATARI Microsoft BASIC - ATARI Macro Assembler - Fig-FORTH - ATARI Assembler Editor - PILOT - ATARI Pascal - INFOCOM has their entire product line on a two page ad. -ZORK I, II, & III, Deadline, and Starcross, that's all. -Strange ad department #2: - AD for Broderbund Software has "APPLE PANIC" for the ATARI. - OUTPOST ATARI asks "What has become of Dave (Magic Sac) and Sandy Small... Seems Dave had designed a replacement for the 810 drive that was seven times faster and had a company in Texas by the name of "Leading Edge". Hmmm... - Until next month... Ron Carter!

STIG MEETING NOVEMBER 17, 1987 by LOUIS MENDOZA

The first speaker, Ed Fason, opened the meeting by announcing that the main subject for the night would be the MIDI interface and its capabilities so while they set up their equipment, Phil from Horizon Computer let us in on the new software available and some price changes on some of our old favorites.

PUBLISHING PARTNERS......has dropped their retail price from $149.95 to $89.95, There are also 7 fonts now available and they retail for $29.95 each and there are more than 1 font per box.

THE LIP STICK............by Access is a piece of software that allow you to press the trigger by speaking or blowing into a mouth piece that is fitted around your mouth, this allow the you to rapid fire on those shootem ups much more rapidly then you could otherwise press the trigger. The retail on this item is $24.95

URIDIUM..................a new shootem up Zaxxon style game it retails at $39.95

TRACER...................from Firebird/Rainbird software, it is very complicated to play, it looks very nice but it is not a 5 minute shootem up its a very serious game although there is some shooting involved.

CHOPPER-X................this a nice inexpensive helicopter gun ship game it retails for $19.95

YOUR ST COMES ALIVE......this a book/disk combination it gives you an introduction to things such as: 4 interfacing chapters, a light pen chapter which explains how to light pen the ST, multi modem chapter and many more. Call for price.

GAUNTLET.................just like the arcades and it retails for $49.95

MARBLE MADNESS...........from Electronic Arts another arcade game retails for $34.95

WIZARDS CROWN............its beautiful on the 8 bit and hear its even better on the ST. It retails for $39.95

NIGHT ORC................from Firebird/Rainbird, a game similar to Pawn it a graphic/text adventure with very good graphics at a retail price of $44.95

For those who do not yet know, Horizon Computers has move, the new address is 695 S. Colorado Blvd. suite 10.

After Phil finished with his review of the products he brought, we started into the midi portion of our meeting. Our speakers, Steve Wilford and Ken Paulzi, did a fantastic job with their demo of the midi but Steve gave so much information that it is all but impossible to list it here with out putting it down word for word. I have condensed most of what I understood into these next few paragraphs but I do not even pretend to do justice to our guests or their presentation. I wish those of you, who are interested in the midi capabilities of our computer had been there, but since many of weren't, here goes.

Steve began his demo by giving us a general description of the components needed for a basic midi set up. "For a good standard system a lot of people ask me", 'what should I get if I just want to play around with a synthesizer and use the midi ports out of here?', "a good

conventional processors. Low priority processes are round-robin scheduled on a timesliced basis. Timeslicing only occurs on particular instructions which are defined so that the minimum of state need be saved; process switching is therefore very fast.

The transputer achieves inter-process communication through channels, which are single words of memory. Two processes that wish to communicate rendezvous at a channel and exchange data by copying from one buffer to another. As this is implemented by the microcode, the cost of copying lies only in the memory accesses for the data and not in instruction fetches. Communication is strictly one-to-one and channels may not be shared by more than one sender or receiver. The inter-processor links are designed to behave exactly like channels, and are used with the same instructions.

Parallel Programming

The unique aspect of the Atari/Perihelion design is that is provides multiple processors within a single workstation. The use of multiple processors means that is is possible to write application programs which make use of the possible parallelism inherent in such systems.

Application programs can run under Helios using three programming philosophies. The first of these is the traditional programming model. A program can be taken from another environment, such as Unix or a PC, and with little or no change converted to run under Helios. C and the Unix C library is provided, and such programs will run as a single process in the machine.

Other programs, again probably from Unix, will run in several sections all of which may be run in different processes and connected by pipes. Helios encourages the use of many small programs which work together to create a final product. A common example is a pre-processor, a compiler front end, a compiler back end, an assembler and a linker. These can all be run together with intermediate connections made by pipes. Under other operating systems the different processes are timesliced on the one single processor. Under Helios these different processes can be allocated to different processors, so that the individual parts actually run at the same time.

This type of "per-process" parallelism is easily understood, and many applications are already in this form. Examples include a word processor with background spooling and spelling checking or background jobs such as message systems or archiving. If an application is being altered then the use of extra processes should be kept in mind.

The final way in which parallelism may be exploited is by the use of parallel algorithms. These tend to be hard to find for programmers used to the sequential nature of normal computers, but a look at the real world shows, of course, everything running in parallel. Applications using parallel algorithms will normally be written from scratch with such ideas in mind. The benefit is that such programs will run much faster when the user provides more power in the form of more processors. Many examples of parallel algorithms exist, such as ray tracing, spreadsheet calculations, even computer chess!

Helios Overview

Helios is a true distributed operating system; there are no central services upon which the whole system relies. This results in increased system reliability since the failure of any processor, or the partitioning of the network, will not cause unrelated parts of the system to fail (although they may continue at a somewhat reduced capacity). The distributed nature of Helios is transparent both to the user at his terminal and to programs running within it which need never be aware of the exact location of any services. This feature differentiates it from a network operating system where the distributed nature is more explicit.

Helios is intended to be an open system architecture in which parts may be added, removed, modified or replaced transparently to suit specific purposes. In many ways Helios is simply a set of conventions, or codes of practice, for the behaviour of programs. It may be thought of as a "software backplane" providing an infrastructure for processes to locate and communicate with each other.

Finally, the emphasis throughout the development of Helios has been on finding practical solutions to the problems of distributed computing. For this reason many of its features are not new but have been derived from existing research systems. The two most important influences have been the Cambridge Distributed Operating System and another system called Amoeba.

Membership to Starfleet Users Group has many advanges. One is access to the club's software library another not so well known one is access to the club's hardcopy library. A few months ago I became the hardcopy librarian. After sorting through the newsletters, books, and magazines, I am ready to allow these to be checked out. Included in the library are newsletters from about 60 clubs, back issues of our newsletter, 24 books, and 3 copies on one issue (Vol. 5 No. 5) of Home Computer Magazine. A listing of the books and number of copies follows: (1) Atari 130 XE Owners Manual (1) Atari Assembler (The) (1) Atari Dos 2.5:1050 Disk drive Owners Manual (1) Atari Games and Recreations (2) Atari Pilot for Beginners (2) Atari Sound and Graphics (2) Basic Exercises for the Atari (2) Compute!'s First Book of Atari (1) Compute!'s First Book of Atari Graphics (1) Discover Forth

5.5% to $36.2 billion from $34.3 billion for the same period of 1986. (Did you notice that IBM's total revenues over the last four quarters are more than 25 times larger than Apple total sales for fiscal 1987.)

Despite this impressive gain, IBM stock did not appreciate prior to Black Monday. Investors held back puzzled as to why IBM's profitability failed to improve more significantly given that 14,000 employees were laid off at the end of the second quarter. On the other hand, IBM profitability was aided by the fall in the U.S. dollar which added roughly $300 million in profits and over $2 billion to revenue over the first 3 quarters of 1987.

IBM closed at $125.25 per share on October 19. If I only had some more cash on hand to buy. This market close was more than $50 below its August high. However, be prepared to move out again quickly with the blue chips such as IBM.

Nibble Bits:

o WordPerfect 4.1 for the Atari ST is now available. It has all the pull-down menus and features that accompany the MacIntosh version released last month. Early purchasers say it has a few bugs but knowing the folks from Word Perfect, they will be corrected in very short order. L&Y Computers in Woodbridge is selling version 4.1 for around $200.

o A high resolution color monitor is being made for Atari right now in the Far East. It will be compatible with both the ST line of computers and the Mega. Look for this monitor around June 1988.

o According to a rumor reported in InfoWorld, look for Steve Jobs of Apple fame to share with Atari Corp. a custom graphics chip. According to this report, it will be shown at Atari's booth at COMDEX.

Next month some Christmas suggestions for both the ST and 8 bit machines and electronics in general.
LATE NEWS!!!!!!!
  ANTIC PUBLISHING INC.,
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  NEW ATARI PLANT

In an attempt to boost personal computer sales in the United States, Atari Corp. plans to open a 100-person small manufacturing plant somewhere in Silicon Valley early in 1988 and a larger factory in either Texas or Nevada later in the year, according to Atari President Sam Tramiel. Tramiel said that domestic sales were strongly affected by the heavy European demands for the ST line of computers, manufactured exclusively in Taiwan

-- about 80% of STs manufactured this year were sold in Europe. "We never had any product left over to bring to the U.S., " he said. In late 1987 Atari's IBM PC-compatible went on sale in Europe, but Tramiel says that the Atari PC same won't reach stores in the United States until well into next year. December 11, 1987 Atari Corp. will NOT be in Las Vegas at CES in January, 1988 -- but ANTIC ONLINE will: whatever Atari news there is will be uploaded as soon as we get it.### EDITOR: please center the title and credit byline, and all capitalized subsection headings. If possible, put all the aforementioned text in boldface, large letter, italics, etc. to distinguish it from the remaining text. Delete this message. ###

NOTE TO THE READER: essentially no limitations or restrictions exist regarding the reproduction of the following article, except that this notice must be present in the copy. You are encouraged to duplicate and disseminate it.

ACTION! TRIX By Ian Wright

Due to the incredible and overwhelming popularity of the original TRIX column, I have decided to further the cause with this article devoted to some neat TRIX in ACTION!. (Ladies, if you send me your address I can return the assorted lingerie items.) Since the response was particularly enthusiastic from veteran programmers, I have decided to assume my readers have a fundamental familiarity with my subject. Basic knowledge will be ignored in this article because it sometimes appears condescending. Now, with that in mind, let us advance to the difficult concept of INSERTING THE ACTION CARTRIDGE. Can you say "cartridge"? First, grip the cartridge firmly in the left hand...

JUMPING TO CONCLUSIONS

Those of you that are familiar with the ACTION! language may jump to the conclusion that "jumping" instructions have jumped out of the picture. I, for one, am in favor of unconditional jump instructions in any language, especially high-level ones; how else besides jumping can you get to those high levels in the first place? There are those radical, fanatic right-wing conservatives that will tell you that GOTOs and the like are the work of SATAN and besides, they encourage spaghetti programming.

POWER TO THE PROGRAMMER

I propose that the programmer should have as much power provided as possible when programming, for what is Atari but power without the price? To those radical, fanatic right-wing conservatives I quote Marie Antonetti: "Let them eat spaghetti!" Go bug the supreme court about evolution vs. creation but don't mess with my computer

JUMPing to a point inside the final procedure of a program is tricky. ACTION! begins program execution at the final procedure in the program. If a programmer wants to JUMP to points inside the "final" procedure, he must insert PROCEDURE statements in that "final" procedure, thus attempting the equivalent of an electronic Catch-22, a vicious cycle, infinite regression, self-defeating action, etc. The solution is to have a pseudo-final procedure, one that may look like the following:

```
proc final()

[$4C real]
```

This procedure is the last procedure in the program. It transfers control to the "real" final procedure.

ELIMINATES TENSION AND FRUSTRATION!

No, that is not an advertisement for an Inflatible Woman. (Sorry. I would only crack a joke like that for a good reason: to get your attention! Now that I have it, listen carefully, this is important.) Actually, that heading refers to the nasty nightmares you may encounter if you do not give the backward jump variable (in this case it is WHERE) an initialization value. Note that this is a VALUE, not an ADDRESS. Those inquisitive and curious among my audience ask, "Why is this necessary, anyway?" First let me relate to you a tale of a certain cat's untimely demise...

A LONG-WINDED EXPLANATION

When an ACTION program is saved via the "W" command (from the monitor), the inititialization values for variables are written out along with the code for the program. Then, when it is loaded as a binary file, the variables will have their correct values. However, we have interfered with this process somewhat with the SET command in the program. ACTION will not write out the value that was SET to the variable. Thus, when the file is loaded the variable contains an arbitrary value and the system may CRASH. (Hear that? That's the chattering teeth and knocking knees of many users with obliviphobia, the irrational fear that Mickey Processor might vacation in Never-Never Land.) If the jump variable has an initialization value, the new SET value will be correctly written to disk. You are now advised. Of course, the aforementioned procedure is only necessary when writing an ACTION program out as a binary file. Do it anyway--obliviphobiacs will thank you.

CAVEAT

(For those culturally impoverished readers, that is a latin verb that means, loosely translated, "to eat in a cave".) These techniques are a powerful tool in the hands of the programmer. They make JUMPing possible even between different procedures, a characteristic that even high-level languages with GOTO do not allow. However, the programmer must be responsible and careful for their effects, because they are exempt from normal error-checking during complilation.

_ WIMPOUT (AND INVITATION)

Neither JUMP technique has been tested with the ACTION run-time compiler. That is left up to you, to go where no man has gone before...

HAPPY TRAILS TO YOU

Yes, its time for your favorite columnist to send off into a beautiful, dazzling sunset atop a modem carrier. May your data have a long life and your days be free of errors. Stay tuned for more exciting episodes...

P.S. By the way, ANTIC stands for ANother Television Interface Chip.

The long-awaited 80 column card for the 8-bit computer line is finally available in local stores. I wandered through the San Leandro Federated store the other day and found myself walking into stack after stack of Atari hardware. Sure enough, way down near the bottom of the piles were a number of red and white boxes marked XEP-80 $79.95. Here it was, a buck a column, the 80 column adaptor card from Atari. Not having just come over on the boat, I immediately considered waiting for the price to drop like a stone, like it did on the SX-212. For about thirty micro-seconds.... Actually, I have never missed the 'convenience' of having an 80 column display on my computer, but I had purchased a Technica MJ-22 with the intention of using it in 80 columns and separate chroma mode. What experiences I had from 80 column modifications had convinced me that most color monitors could never produce a reasonable display in 80 column mode, but I expected the MJ-22 to make the grade. Sooooo,,,,, out of the box, plug in the power, pop in the 80 column boot disk, connect the video cable to the MJ-22, and.... nuthin'. No picture at all. Check the power, stroke the disk drive, wiggle the video cable, and..... still nuthin'. I didn't spend all that time in school for nothing; out comes the 'scope for a quick look-see. Lots of nice video, clear out to the end of the cable that came with the XEP-80 - except, gee,,,, the connector on this cable sure has a short signal pin. It doesn't even look like it will make contact with the monitor socket. And, that's exactly what's wrong - the cable supplied with the device will not make contact with the RCA type video

offloading the screen overhead to the XEP-80. The tremendous increase in the first two tests is a result of the much faster screen I/O from Basic when using the XEP-80. The slow screen I/O that CIO gives you is a major reason why many programs do not use CIO - it is just too slow. It seems to me that the XEP-80 can make it practical to use CIO, now. How about it, programmers? So, great, using the XEP-80 gives you a nice clear, 80-column display and it speeds up my CPU. Is it worth it? After using it for awhile, I have found it makes it much easier to work on larger programs since you can see about twice as much code in each screen. The extra speed seems to make the whole machine feel like another computer, making everthing flow more smoothly. All of the editing functions work as they did with the 40 column display, so there is not much of a learning curve - with a few exceptions. All in all, this thing is pretty good if you do anything on your Atari besides shoot Bad Guyz - and it is going to get better and better as more software supports it. Quirks? A few. Like there is no keyboard buffer. I am used to entering 'A' from the DOS screen and hitting ENTER twice for a Directory. Seems like the first ENTER is read and the screen output started when the second ENTER is entered. The XEP-80 either does not see the second ENTER or ignores it. You have to wait for the screen to finish before the computer will take keyboard input. Along the same line, I will sometimes enter a LIST command and when it looks like the listing is in the region I want, I hit the BREAK key to stop the LIST. I can then edit the lines that are displayed. Forget that!! BREAK does not work while the screen is LISTING. You enter LIST and you get the whole program - period. Unless you want to try RESET. That key will really croak the computer, sometimes. It seems that the XEP-80 gets goofed - up and must be powered off before anything will work again. Never seems to happen for no reason, but I can't be sure what's going to happen if I RESET. Not a bad box, and destined to get better. Get one. Today.Bob Wooley

Announcing Atari ST software for X*PRESS

X*PRESS is an electronic information service transmitted via satellite and cable TV. A decoder box picks up the X*PRESS signal and transforms it into 9600 baud serial data which can be fed through a connector from the decoder box to your computer. This service has been available for some time for the IBM PC and Apple // series computers. I have just completed the software to allow Atari ST computers to access this service.

X*PRESS is a one-way service that delivers news, sports, weather, entertainment and business stories to your personal computer at high speed. There are two services offered through X*PRESS. X*PRESS Xchange has a one-time fee to purchase the decoder box and software (about $100) and includes stock market quotes for major North American markets updated three times a day. You

must have a cable TV connection from a participating Cable TV company or a satellite dish and there is no fee for unlimited use of Xchange. X*PRESS Executive is available for a one-time fee of about $225 for a decoder box, descrambler, plus software. It includes considerable more financial news from Standard & Poors, McGraw-Hill, as well as newswire reports on mutual funds, metal markets, money markets, commodity markets, and other specialized financial news from Business Wire and PR Newswire. X*PRESS Executive also provides continuous stock quotations on a fifteen minute delay all during the day. There is a $19.95 monthly fee for this service, which is primarily aimed at serious investors and business people. Up to 128 different user-selected ticker symbols can be monitored.

The Atari ST software breaks down the feed into stories organized into categories such as News, Weather, Sports, Lifestyles, Entertainment, Tech Talk, and Shopping. The Executive service also has Business and Finance categories. You can select from the categories (which are further broken down into more detailed sub-categories) which stories you want to capture in your ST's memory. Then you can use the software to browse through the stories captured in memory, print them and save them to disk.

X*PRESS carries stories from Associated Press, United Press International, Canadian Press, Copley News Service, SportsTicker, Washington Post Writers Group, PR Newswire, Business Wire, Business Week, USA Today, CNN Headline News, plus foreign news wires including TASS news agency [USSR], XINHUA [People's Republic of China], China News Agency [Taiwan], AFP [France], DPA [West Germany] and NOTIMEX [Mexico]. (The foreign news wire text is all in English except NOTIMEX, which is in Spanish.) There are book, movie, music and TV reviews, features on lifestyles, travel and food as well as on-line conferences on various user-suggested topic.

The Atari ST version has several unique features. You can set up 'clipping folder' which is a feature that will scan ALL incoming stories for selected keywords and then save them in memory for later review. You have two clipping folders with up to eight keywords each. Keywords can be optionally combined in pairs, for example, save all stories with both the keywords 'Apple' and 'Computer' in the same story. Or, use them singly to capture any stories with the words IBM, or Microsoft, or Atari, or Tramiel in them. The Atari ST software allows you to run another program from within it and keep on capturing stories and stock quotes in the background. This is not resticted to GEM programs. Many non-GEM programs will run successfully from within X*PRESS.

The Atari ST software is expected to be released early in 1988. However, for a limited time, final beta

On the other hand, there's the video game business. We fully expected video games to be a dead issue upon joining Atari. After all, everyone knew the video game business was dead. At Commodore, we thought we'd killed it! But, we were surprised when the existing inventory of about a million 2600 systems sold during the first year of the new Atari Corporation, without any advertising and with little effort. As a kind of experiment, we built another million machines and sold them during the next year. "Aha," we said to ourselves. "Doesn't look like a dead business to us!"

So we went forward with the 7800 system, for which parts were already available, and lo! and behold, we sold all we could make of them last year also.

Now Nintendo and Sega have jumped in with high-end, $150 game systems. Nintendo in particular is doing very well indeed. They don't sell as many of these as we sell, but they sell for more money. So Atari took a hard look at the marketplace and determined that we should do a $150 system as well.

Examining the products, it seems that Nintendo has decent graphics, a light gun, not much of a joystick... and a robot. What does the robot do? Well, it photographs very well in their commercials, but really it doesn't do anything to help in playing games.

For the same $150, we can provide the consumer with a game system, light gun, three pieces of software -- and a computer-style keyboard. While not as dramatic looking, I'm sure all computer users know that some games just can't be played with a joystick alone. Flight Simulator II, which comes with our XE Game System, needs the keyboard. So do adventure games and most other strategy games.

We can't get stores to carry the 8-bit computers. They won't even sell the software to their existing customers -- for a while software companies had to put the 8-bit programs on the back of the C64 disk to get shelf space at all! But when we showed the XE Game System to the buyers, they were totally enthusiastic.

This is truly marketing in action.

We have something like 50 cartridges in inventory from the old days, and are feverishly working on converting disk games to cartridge. With some clever programming, we can now get 256K of ROM on a cartridge, instead of the 16K in the old games. That's how we got Flight Simulator II *plus* a scenery disk onto a single cartridge. There is nothing different about the XE Game System to make this work -- existing 8-bit computer owners can use the very same cartridges.

So what does this mean to you? In the beginning, all it will mean is that more games will be coming in 8-bit tari format. But, what we hope is that this will be the springboard to revitalizing the 8-bit Atari computer line. Once the XE Game Systems start selling (and they have just begin arriving in stores this past week), we have a potential market of hundreds of thousands of consumers. At this time Commodore is selling around 300, 000 C64's annually. With a market this size, the motivation for software developers to bring out new titles in our format is enormous.

Remember, the XE Game System is totally compatible with your 8-bit computers. Once the customer takes the XE Game System home, they discover in the manual that the system includes the Atari BASIC language and that there is an SIO port for computer peripherals. We expect that people who may have been frightened of computers, or leery of spending the money on a computer with a drive ($400+) initially, may very well upgrade to a fuller system. And we hope that they will then demand the kind of software that we need to see developed -- serious applications software.

While this is happening, we continue to sell the 8-bit computers. Contrary to some published reports, we cannot simply remove the motherboard from the 65XE's and put them in the Game Systems. It's a different board. So, we still have the large inventory of computers. And we expect that smart Atari dealers will use the advertising campaign for XE Game Systems and sell the computers as a compatible alternative. "Why," they might ask a customer, "should you spend $150 when you can buy the system ala carte, with a computer for $99 in a more compact case and then buy whatever software you want?"

Lets all hope this works. Atari has tried just about everything in our power to keep the 8-bit computer line going. This is probably our best shot.

One last fact -- for our customers in areas where there are Federated stores, Jack Tramiel has said that these stores will carry a full line of Atari 8-bit computers. So availability should be a whole lot better in California, Texas, Arizona, and Kansas.

hanks for giving me the time to explain in much more detail than I can online. We've been through some tough times together. Please try to keep the faith and bear with us just a little longer while we get the 8-bit situation straightened out.

Best regards,

Neil Harris

-EOF- --
ZMAGAZINE 83 "Special Edition"

connecting the two wires of J11 together over rides the write protect of the drive. You can now write to ANY disc, whether it has a notch, write protect tab, or no notch at all. So, we have to put in a switch so that we can go from the old NO format, no write condition to ALL format, all write condition.

Remember those extra write protect tabs that you had? Put them on ALL your discs! Just in case the sensor starts working again and formats or writes when you least expect it. All you people that use both sides of a disc (a bad practice I'M told), will now be able to format or write to side two without making a notch. On to the finish...

Remove J11 again and remove the jumper wire that connected the first two wires. What we want to do is solder a length of wire to each of the two wires (the bared portions). Once you've done this, tape each wire well and replace J11 on the board. (use your mark for front!). Each wire should now be separate with a length of wire coming from it.

Now solder a wire to each of the two terminals of your switch. (first decide where you're going to mount it, I mounted my pushbutton on the lower sloping portion of the face plate). Without replacing the cover, plug your drive in and test it once again for format and write. If it does'nt write or format the first time then push the switch to the other position. It should now work. If it worked the first time, it should work now. If not, go over your work. Maybe you did'nt make one of the connections properly.

If using a pushbutton switch, in should allow the drive to function as it should and out should restore it to it's former no write condition.

Now mount your switch, (keep the wires away from the drive mech.) and replace your cover. As to WHY this works or what happened to break your drive in the first place, well sorry I don't know. I do know that it worked for me and I'm hopeful that this $3.00 fix works for you.

Wpiii   Willie   Pelzer   3rd   ppn#   73247,   206

Xx SPARTADOS HELP

----
by Gerald Cox

How many times have you wished you could call a binary file AUTORUN.SYS and have SpartaDOS load it automaticly for you but the program will not run with the key board buffer installed. Until now the only way was to use a startup.bat file to do a key off then load the program.

Well I got tired of it and discovered that you can

search the X32D.DOS file for three bytes and change them and the default on boot up will be the key board buffer off. Just get out the SpartaDOS Tool Kit and load the Diskrx sector editor. Search for these three bytes.   20 DB FF. Change them to EA EA EA. Thats all there is to it. I also changed the ver.   number   to X32k.DOS so I would know that it was the one with the default K.B. off. I think this makes a great dos even better.

If you don't have Diskrx then format a disk with AINIT. Copy X32D.DOS to it.

Load up what ever sector editor you have and go to sector 106. Now change the bytes 20 DB FF to EA EA EA.

Gerald Cox _____
Xx Tv-VCR CABLE HOOK UPS

If you've ever had a problem hooking up your TV and VCR to a cable system with scrambled channels you know what the word painful really means. But you're in luck cause if you want to be able to restore programmability to your VCR, restore remote control to your TV, restore time shifting, and the ability to tape both regular channels and scrambled cable channels, here's the answer:

SUPPLIES

1 Two-way splitter (a type with as little dB loss as possible--you can even get one with a built-in amp)

1 A/B switch

5 Coaxial cables with attached F connectors

PROCEDURE

1) Take the main cable that normally goes into the cable box, and put a 2-way splitter on it.

2) Take a coax cable and attach it to one of the outputs on the splitter with the other end going to the cable box input.

3) The other output of the splitter goes to the A input of the A/B switcher.

4) The output of the cable box then goes to the B input of the A/B switch.

5) The output of the A/B switch then goes to the VCR RF input.

6) The VCR's RF output goes to the TV.

Here's how it looks graphically:

phone # list)

Got it? NOW do some renaming...

RENAME TEXTPRO.COM to DUP.SYS (that means that it will automatically be saved to D8: when you boot with RAMDISK.COM) Before you do this, make sure you've erased the <ORIGINAL> DUP.SYS to prevent duplicate fienames.)

RENAME EXPRESS.COM to AUTORUN.SYS

You're ready to go!

Boot up your XE as normal with Express using your new master disk. Turn on your 1030 modem, then the drive, then turn on the computer while holding down the OPTION key to cancel Basic.

When the load is done, and the Express menu is up...

MOST IMPORTANT: DELETE 'D8:MEM.SAV' using the 'J' command in Express!

Dial up wherever and capture whatever text you want to D8: text files. When you're done, sign off as normal and you're back to the menu.

NOW...

<MAKE SURE> that you have your master disk in D1: (or any disk that has the TEXTPRO aux files on it) Ready?

Press RESET. You'll see TEXTPRO (remember, we've fooled the computer into thinking it's DUP.SYS) loading (fast!) and then the aux files loading from D1:

Viola! You are now in TEXTPRO <without> having to do a re-boot!

The text files you have on D8: are still there. You can now go ahead and edit, do replies, whatever, using TEXTPRO's power.

DO NOT turn off your 1030 modem!

When you're done editing (at this point, I usually have a text file of replies and msgs on D8:), and ready to get back On Line..

<MAKE SURE> you have a disk in D1: with EXPRESS and it's aux files (that Master Disk, again, is REAL handy.)

Use the TP <SELECT-CONTROL-W> command to do a binary load. At the prompt, input AUTORUN.SYS (or whatever name you have Express saved under.)

Providing you've followed the above steps, you'll see Express loading (again, no need to re-boot!) and

you'll be back in Express, ready to Upload your new text files!

Note that D8: still contains any files you've saved. Just like they say in the DOCs, it's functioning as a clipboard (though Mr. Paranoia, here always saves anything vital out to D1:, just in case...)

That's all there is to it. I've found that you can continue swapping back and forth between the two programs with no degradation in performance.

If you run into problems, leave me a message and I'll see if I can help...

>>don   [70717,   720]

Xx ARCX HELP

To sign up for 6Enie service, call (with modem) 800-638-8369. Upon connection type HHH (no RETURN after that). Wait for the U#= prompt. Type XJM11877, 6Enie and hit RETURN. The system will prompt you for your information.

HELP for using ARCX v1.2 <file #1908>

This is a short "How to..." on the use of ARCX version 1.2 as found in the 6Ene 8 bit Atari RoundTable. This file is broken into two parts:

1) loading ARCX 2) running ARCX

Since there are few differences in ARCX v1.1 and ARCX v1.2, we will refer only to ARCX. It is strongly recommended that you download ARCX v1.2 as it is about 30% faster than v1.1 and will therefore
save you some time off line when recovering files.

ARCX is the program that you will need to be able to recover and use all of the files in the Atari RoundTable that are stored in the ARC format. See the file ARC.HLP for more info on the creation of an ARC'd file.

LOADING ARCX ############ To load ARCX, place a disk with your DOS file(s) on it in D1: and turn on the computer. BE SURE TO HAVE ALL CARTRIDGES REMOVED AND ON XL/XE MACHINES, HOLD DOWN THE "OPTION" KEY TO TURN OFF BASIC. ARCX is known to work with Atari DOS 2.0 & 2.5, SpartaDOS <all versions>, and MYDOS 4.0 and up. ARCX ** WILL NOT ** work with SMARTDOS.

technical representitive at Hayes, it turns out there was an undocumented change in how the 1200 baud model handles DSR (data set ready). Since most terminal/BBS software uses the DSR signal as part of the STATUS check, it is critical for proper operation that you understand what you are getting.

The 'old' model, like most modems, sets DSR high at carrier detect. Actually, the Hayes has a jumper between pin #6 (DSR) and pin #8 (CRX) so that when it sets CRX high, it automatically sets DSR high. The STATUS call will send a value of 8 to address 747 (decimal) for CRX high and 128 for DSR for a total increase of 136 in address 747. Most software depends on this higher value to determine 'connect' after dialing, or for BBS software) to determine that a caller has connected.

The 'new' model (10 dip switches) of the Hayes 1200 changed the jumper to pins #6 (DSR) and #5 (CTS), the latter normally not even connected by cable to the 850 interface. However, when the modem sets Clear to Send high, it is BEFORE carrier detect, and since it is directly connected to DSR, it also sets DSR high before connect, resulting in a false connect signal to the software.

How do you get the 'new' modem to act like the 'old' model?

1) Modify the modem. Nobody wants to mess with the modem warranty or screw that up.

2) Modify the software. Most people don't know how to do that at all, and you would have to change every program you use anyway.

3) Modify the cable. This appears to be the best solution. Here is how we did just that:

Disconnect the wire at pin #6 on the RS-232C end. Disconnect the same wire (also pin #6) at the 9-pin D plug for the 850 or P:R: Connection. This will insure that the false DSR will not be sent from the modem.

Then to simulate DSR at connect, solder a jumper wire at the 9-pin D plug (850 interface end) between pin #6 (DSR) and pin #2 (CRX). Now when Carrier Detect is set high, it also sets DSR high. This cable will work with the older models too.

Here is a diagram of the new cable:

```
850   (9   pin/D-male)   RS-232C   (25   pin)
-----------------   ----------------

#1 DTR )------------------> DTR #20   ++#2  CRX
<------------------< CRX #8 + #3 SEND DATA )------> REC
DATA #3 + #4 REC DATA <------< SEND DATA #2 + #5 SIGNAL
```

GND ------ SIGNAL GND #7 ++#6 DSR <--/(disconnect)/--< DSR #6 #7 RTS (not used) CTS #5 #8 CTS <------< HI SPEED INDIC #12 #9 (not used)

++NOTE: Jumper between pins 2-6 so that DSR is set high whenever CRX is set high by the modem.

NOTE: #8 CTS to #12 HI SPEED INDICATOR is only for auto answer with some BBS software for baud recognition but otherwise not required. Avatex modems do not have #12. Some BBS software depends on the RING INDICATOR to force the program to send an ATA to the modem. In this case you can use #8 CTS to #22 RING INDICATOR instead of the 8-12 as shown.

Call Hayes Microcomputer Products at 1-800-241-6492 for   further   information.

Xx HACKING THE JOYSTICK PORT

By Chuck Grimsby

As every Atari Basic programmer knows, the joystick port can be used to produce nine different actions or commands (excluding the center or 'null' position), utilizing the STICK(x) and STRIG(x) commands. The numbers your programs look for are:

value stick posision ----- --------------- 14 UP 13 DOWN 7 RIGHT 11 LEFT 6 UP RIGHT 5 DOWN RIGHT 9 DOWN LEFT 10 UP LEFT 15 CENTER (NULL) 0 FIRE, (USING STRIG(0) 1 NOT FIRE

You may have noticed that there are some numbers missing from that list, and from all lists that show you how to use the STICK(x) command. Where are the numbers 0-4, 8 and 12?

Well, actualy those numbers are there and are readable, but you can't use a normal joystick to produce them. You either need a numeric keypad (like the old Atari CX-85) or a special 'joystick' consisting of buttons in place of a single stick.

I built myself a special joystick to use as a non-moving mouse (my desk space is VERY limited) and discovered I had also created a joystick that would produce those non-standard numbers.

My brother has dubed this device a 'Dead Mouse' and it has proved to be very handy. It also works great as a very accurate joystick for MicroPainter.

The new STICK(x) list using the Dead Mouse looks like this:

VALUE BUTTON(S) PRESSED ----- ----------------- 0 UP

works in a similar manner to X-Modem, but block size is 1, 024 bytes as opposed to 128 bytes. There are less handshaking delays and the transfer goes about 20% faster. All the newer BBS programs support Y-Modem protocol.

If you are using a 130XE and Basic XE, you may wish to try out a special version of Amodem -- v7.3. It is a modified version of the older Amodem 7.0, but with a major improvement - the extra memory in the XE is used as one big buffer!

Express is by far the easiest terminal program to use. It offers a better autodial system than either of the above two programs. Although it doesn't handle Y-Modem, its file transfer routines are very reliable. So many good things have been said about Express that it would seem useless here to bore you with the details.

The Chameleon CRT Terminal Emulator can be especially useful in certain instances. This hard-to-find program emulate a myriad of different terminals. It can also act as a file server and supports Kermit protocol.

If you only need VT100 emulation, there are a number of programs which support this which are in the public domain! They even display 80 columns on the screen. However, the text is compressed and difficult to read. Still this program's advantages far outweigh its disadvantages if you need the full screen editing that a VT100 terminal offers.

Backtalk 1.2 AP0154 $19.95

The Catalog 544 Second Street San Francisco, CA 94107

Chameleon CRT Terminal Emulator AP0113

The Catalog 544 Second Street San Francisco, CA 94107

Express, Amodem, and VT100 programs are in the public domain and can be found on the A.c.e.c. user group   BBS   (614)-471-8559.

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